

Drink/driver rehabilitation courses in England and Wales

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Abstract

The UK Road Traffic Act 1991 allowed certain Courts to offer drink/drive offenders the opportunity to attend a rehabilitation course. This paper examines reconviction rates over three years of more than 20,000 drink/drive offenders, 9000 of whom attended rehabilitation courses. The variation in the proportions of offenders completing rehabilitation training in 18 different Court areas provided an opportunity to model the effect of subject selection bias. Overall, taking selection bias into account, the drink/drive rehabilitation courses appear to have reduced reconviction rates by slightly more than 50 per cent.

Introduction

The UK Road Traffic Act 1991 allowed certain ('experimental') Courts to offer drink/drive offenders the opportunity to attend a rehabilitation course. If an offender successfully completed the course, the period of disqualification from driving could be reduced by up to a quarter. Courses were run by a number of different organisations and were financed from the fees (ranging from £50 to £250) paid by the offenders. A typical course was organised into sessions lasting 2-4 hours per week for a period of 8-10 weeks attended by 8 to 10 offenders. The content of the courses was laid out in a framework provided by the Department of the Environment, Transport and the Regions (DETR). A range of issues was covered in each course, including: information about alcohol and its effects on the body; the effect of alcohol consumption on performance, particularly driving ability and behaviour; analysis of drink/driving offences; sources of advice. The participating ('experimental') Courts were advised that the courses were likely to be more suitable for first time offenders who were not convicted at very high blood alcohol levels, although those who came within the criteria laid down for the High Risk Offender (HRO) Scheme were not necessarily to be excluded. (A driver becomes an HRO by either: providing an evidential sample with an alcohol level at least 2.5 times the UK legal limit of 80mg/100ml BAC; or providing an evidential sample with an alcohol level between 1 and 2.5 times the legal limit, having been convicted of a drink/driving offence in the previous ten years; or refusing to supply an evidential sample.) In the experimental Courts, it was in the remit of the Magistrate to offer a rehabilitation course to an offender, who was informed of the fee he or she would have to pay (which was in addition to any fine) and that, if the course was completed successfully, the period of disqualification would be reduced by up to a quarter. The offender then decided whether to accept. The Transport Research Laboratory (TRL) has monitored the effectiveness of the rehabilitation courses for the DETR. A full account of the results of the monitoring is reported elsewhere (1).

Method

The experimental design was laid out in the 1988 Road Traffic Law Review, The North

Report (2). The design called for a set of experimental Courts and a set of similar control Courts. Each experimental Court was matched with a control Court in the same geographic region. The concept was that data from the two sets of Courts could then be evaluated in terms of the eventual difference between the reconviction rate for *all* drivers convicted of drink/drive offences in the experimental Courts and the corresponding rate for the control Courts. The reason for this was the likelihood that offenders accepting referral would be less likely to reoffend than the others, even if the rehabilitation course had no effect, so the effects could only be demonstrated by comparing all offenders from the respective Courts. Between 1993 and 1996 rehabilitation courses were available in the 'experimental' Courts but not available in the 'control' Courts.

Since the last offenders in the sample were convicted in July 1996, and information on any further convictions, obtained from DVLA (Drivers' Vehicle and Licensing Agency, Swansea) for this analysis, contained data on drivers up to the end of December 1998, we have been able to follow all the sample for at least 29 months, and much longer in most cases. In addition to examining reconviction rates, information on offenders' attitudes and alcohol knowledge has been collected and is reported elsewhere (1).

Results

From 1993 until the end of July in 1996, around 9000 offenders accepted the referral offer from Magistrates. This was approximately 42 per cent of all offenders convicted of drink/driving in the participating Courts. By the end of June 1997, 45 per cent of the *referrals* had attended courses, that is 19 per cent of all convicted drink/drivers at the participating Courts.

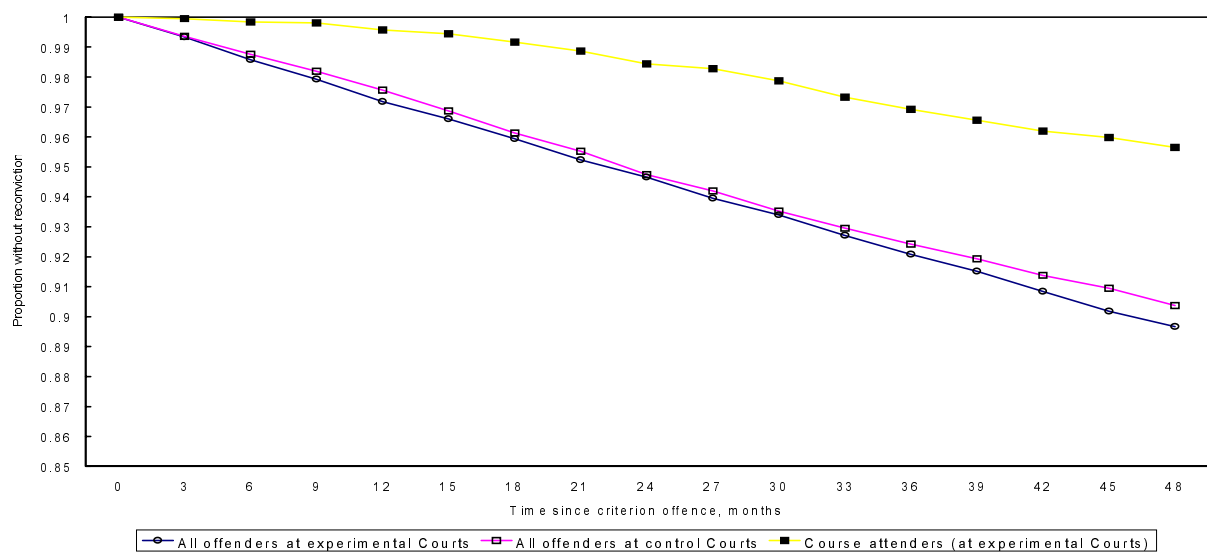
Rehabilitation courses were introduced mainly to cater for first offenders. The data collected by TRL show that most course attenders were disqualified from driving for less than two years. The majority had been sentenced for one offence only, which was related to driving or attempting to drive while over the limit, or unfit to drive. The courses did therefore appear to be reaching those for whom they were designed. About 20 per cent fewer course attenders were under 30 years old, and 30 per cent more were aged 40 years or older than would be expected for typical drink/drive offenders. A substantial minority (nearly 30 per cent) were HROs. Women were slightly over-represented on courses, but were still only about 10 per cent of attenders. The largest differences between course attenders and other drink/drivers were in social grouping. Social categories for offenders were estimated using the ACORN directory (3) developed by CACI Ltd for purposes of market research. The directory assigns each post code in the country to a category (this gives an average description of people living in each post code area). The six categories are labelled by CACI as A: 'Thriving'; B: 'Expanding'; C: 'Rising'; D: 'Settling'; E: 'Aspiring'; F: 'Striving'. 1.6 times as many course attenders were in ACORN categories A + B (the categories with more available money) as would be expected for typical drink/drive offenders, and about half as many were from category F.

Reconviction rates have been calculated using 31/12/98 as the cut-off date for the examination of reconvictions. Data were available for at least 36 months for over 80 per cent of the sample and so reconviction rates over three years are examined in detail. 41 per cent of all offenders in the experimental Courts were disqualified for 12 months, and 63 per cent for under 2 years. At 36 months, therefore, over 60 per cent of offenders should have their licence returned, but they will have been disqualified for at least a third of that time.

Survival analysis has been used to examine reconviction rates. The methodology is used to

analyse the time from the date of sentence for the 'criterion' conviction (the original conviction on TRL's database) to any later drink/drive offence, so 'survival' for a certain period is equated to not being reconvicted for a drink/drive offence during that period. Consequently, the following analyses present the proportion of a particular group of drink/drive offenders who have **not** been reconvicted within a certain time. Figure 1 shows survival curves for: all drink/drive offenders who completed a rehabilitation course; drink/drive offenders convicted in the control Courts; drink/drive offenders convicted in the experimental Courts (including those offenders who had completed a rehabilitation course). The curves show that among offenders who had completed the rehabilitation training the proportion reconvicted at any given time after the original conviction was about one third of the proportion reconvicted at the same time in the control Courts.

Figure 1 Proportions without further drink/drive convictions. All experimental court offenders, control court offenders and course attenders



However, the survival curve for all offenders convicted at the experimental Courts is not significantly different from the control Courts' curve. Indeed, over the whole length of the two curves a slightly lower proportion of the experimental Courts' offenders survived without reconviction for a drink/drive offence. This implies either that the courses have had no (or even a slightly adverse) effect, or that some uncontrolled factor has disguised the effect. If it were true that the courses had had no effect, then the relatively high and statistically significant difference between the rehabilitation course attender and the other survival curves would suggest a selection bias: the offenders who completed rehabilitation courses were intrinsically less likely to reoffend, with or without rehabilitation, than other offenders. An alternative explanation is that, contrary to the intention of the experimental design, the data from the control Courts fail to indicate what would have happened in the experimental Courts if there had been no rehabilitation.

A statistical analysis has been carried out using data from individual experimental Courts. This attempts to identify the overall effectiveness of the rehabilitation courses, taking account of selective recruitment (the likelihood that those attending rehabilitation courses are intrinsically less likely to reoffend than typical offenders). Its effect will be greater in the Courts with a low take-up than in those with a high take-up, so the new approach makes use of the fact that the take-up of courses varies (from 7 to 55 per cent) between individual Courts to estimate the effect of selective recruitment, and hence to estimate the true effect of rehabilitation. Full details of the analysis are reported by Davies et al (1). The analysis suggests that the effect of selection bias on the reconviction rates of course attenders is small compared with the effect of the rehabilitation courses. After allowing for

the effect of selection bias, the rehabilitation courses had led to a reduction of at least one half in the reconviction rates. The new statistical model is unconventional so its results can only be indicative. A range of sensitivity tests suggested, however, that the general conclusion is robust.

Further analyses

Since the experimental-control design has not succeeded, the following analysis compares reconviction rates for the rehabilitation course attenders with those for offenders convicted at the *experimental* Courts who were not known to have attended rehabilitation courses. Some part of the differences observed will be a consequence of selective recruitment, but the majority will be the result of rehabilitation. Survival analysis was carried out for course attenders and non-course attenders at the experimental Courts, that is, the percentage of offenders who have not been reconvicted of a further drink/drive offence within N months, $N \leq 48$. There was a significant difference between course attenders and the non-course offenders. After 36 months nearly three times more non-course attenders than course attenders had reoffended (9.6 per cent of non-course attenders compared with 3.4 per cent of course attenders).

The following analyses take account of differences in social grouping, age, length of disqualification and HRO status. In addition, about 8 per cent of experimental Court offenders were women and female offenders make up 10 per cent of the group of course attenders. There are differences in the reoffending rates of men and women. For the non-course attenders 10.0 per cent of men had reoffended after 36 months compared to 3.6 per cent of women. For course attenders, 3.5 per cent of men had reoffended compared to 2.6 per cent of women. Female non-course attenders reoffended about one and a half times more than female course attenders. The following paragraphs discuss reoffending rates for male offenders.

Social groups

Following the results of preliminary analysis, male offenders were sorted into three groups, those from ACORN categories A and B, those from ACORN categories C, D and E and those from category F. Survival analysis was carried out for course and non-course attenders from each group. The differences between course and non-course attenders were significant at the 0.1 per cent level in each case. Reoffending rates at the end of 36 months for course and non-course attenders are shown in Table 1.

Table 1. Percentage of male offenders reoffending after 36 months by ACORN category

| | Categories A and B | Categories C,D and E | Category F |
|---|--------------------|----------------------|------------|
| Course | 2.6% | 2.8% | 5.3% |
| Number in group | N=965 | N=1440 | N=559 |
| Non-course | 7.4% | 10.4% | 13.9% |
| Number in group | N=1837 | N=4784 | N=4111 |
| Ratio of non-course to course attenders | 2.9 | 3.7 | 2.6 |

Length of disqualification

To take account of the possible 'severity' of the offence, offenders were grouped into those disqualified for under two years and those disqualified for two years or more. Survival rates for each disqualification group were calculated for the social groupings used in Table 1. For each of the three groupings of social categories, the course attenders had reoffended less than the non-course attenders whether they had been disqualified for under 2 years, or 2 years and over. For non-course attenders, the percentage of people reoffending increased

steadily over the 36 months, but this is not true for course attenders. The course attenders appeared to refrain from reoffending while they were disqualified. This is particularly noticeable for men with longer disqualifications from categories C+D+E (see Figure 2) and F. While, for each group, the rate of reoffending increases for course attenders after the end of their disqualification period, it remains less than that of non-course attenders.

There were some differences between the two disqualification groups. Table 2 shows the percentage of men who have reoffended after 36 months for each group. It can be seen that after 36 months, the relative rate of reoffending for course attenders disqualified for two or more years in categories A+B was less than that of course attenders in the other ACORN categories (there was no significant difference between course and non-course groups for ACORN grouping A+B).

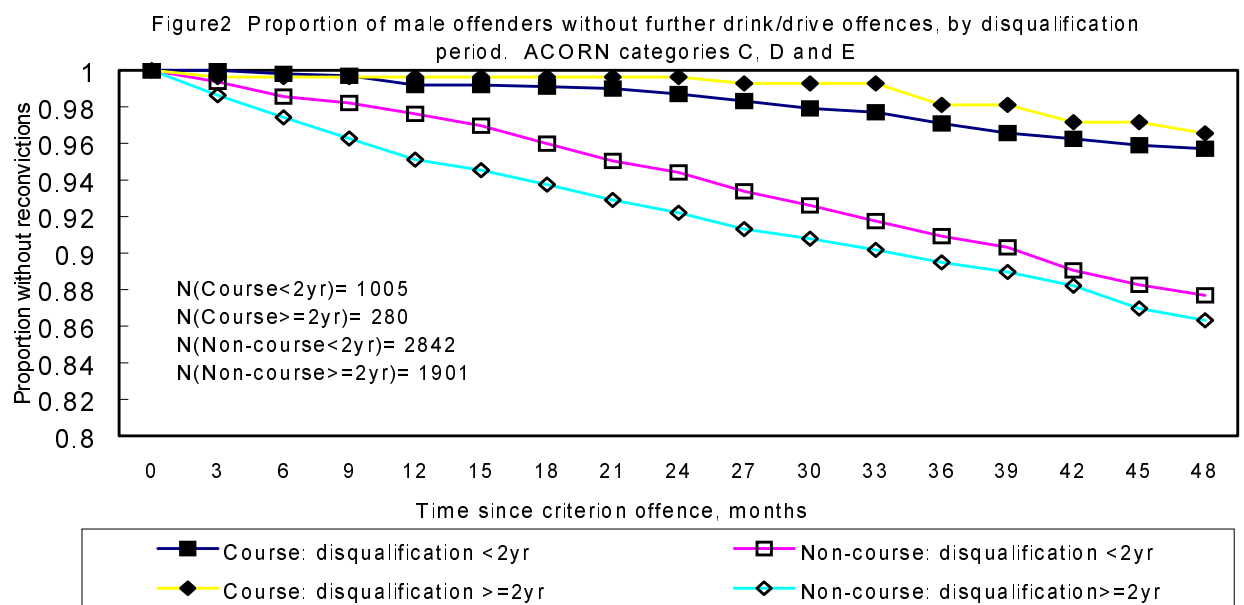


Table 2. Percentage of male offenders reoffending after 36 months by disqualification period

| Disqualification period | Categories A and B | | Categories C,D and E | | Category F | |
|---|--------------------|----------|----------------------|----------|------------|----------|
| | <2 years | ≥2 years | <2 years | ≥2 years | <2 years | ≥2 years |
| Course | 2.4% | 5.3% | 3.4% | 1.9% | 6.1% | 5.1% |
| Number in group | N=607 | N=190 | N=1005 | N=280 | N=2062 | N=119 |
| Non-course | 6.2% | 8.7% | 9.7% | 11.0% | 13.9% | 13.7% |
| Number in group | N=1181 | N=638 | N=2842 | N=1901 | N=2131 | N=1949 |
| Ratio of non-course to course attenders | 2.6 | 1.6 | 2.8 | 5.8 | 2.3 | 2.7 |

Age

Offenders were divided into three age groups: under 30 years, between 30 and 39 years and 40 years or older. For each group, course attenders reoffended less than non-course attenders (differences between course and non-course groups were significant at the 5 per cent level or better for all categories). For non-course attenders, older people reoffended less than younger people. However, for course attenders in each ACORN grouping, offenders in the middle age group reoffended less. Course attenders under 30 and those at least 40 performed less well i.e. the relative effect of attendance was less (though they still do better than offenders in the same age groups who did not attend courses).

High Risk Offenders

Nearly 30 per cent of course attenders were HROs, although the rehabilitation scheme was not originally intended for these offenders. For the non-course attenders, the HROs reoffend more than other offenders (differences are significant at the 0.1 per cent level). As for all the groups previously discussed, course attenders did better than non-course attenders, whether they were HROs or not. For the *course attenders* there was little difference in reoffending rates between HROs and non-HROs. It appears that male HROs benefited as much from rehabilitation courses as non-HROs even though the courses were not originally designed for them.

Discussion

Rehabilitation courses were introduced mainly to cater for first offenders and it was found that most course attenders were disqualified by Magistrates for less than two years. The majority had been sentenced for one offence only, which was related to driving or attempting to drive while over the limit, or unfit to drive. The courses did therefore appear to be reaching those for whom they were designed. About 20 per cent fewer course attenders were under 30 years old, and 30 per cent more were aged 40 years or older than would be expected for typical drink/drive offenders. Women were slightly over-represented on courses, but still comprised only about 10 per cent of attenders. The largest differences between course attenders and other drink/drivers were in social grouping, where 1.6 times as many Course attenders were in ACORN categories A + B ('Thriving' + 'Expanding'), and about half as many were from category F ('Striving').

The main criterion for judging whether rehabilitation courses have been successful is whether offenders who attend courses are less likely to reoffend than those who do not. 36 months after their original conviction, only 3.4 per cent of offenders who had attended courses had been convicted of a subsequent drink/drive offence, compared with 9.6 per cent of those who had not. Thus, rehabilitation courses appear to have succeeded: the reoffending rate of those who did not attend a course was almost three times (2.8 times) the rate of those who did. Reconviction rates were also lower among course attenders when the data were controlled for differences in social grade, sex, age, length of disqualification and HRO status.

Offenders aged 30 to 39 tended to benefit more from rehabilitation training than older or younger offenders. The overall reduction in reconviction rates at 36 months was greater for offenders from social groups in the middle range, particularly if they had been disqualified for two or more years. Those course attenders who reoffended appeared to wait to do so until their licences had been returned while non-course attenders did not. Male offenders appeared to benefit more than the small number of women who attended, although women generally reoffended less than men. 3.6 per cent of women who had not attended a course had reoffended within 36 months of their original conviction, compared to 2.6 per cent of course attenders. (The equivalent figures for male offenders are 10 per cent for non-course attenders and 3.5 per cent for course attenders).

The 1988 Road Traffic Law Review (2) proposed to test the effectiveness of rehabilitation courses by comparing overall reconviction rates in Courts where courses were offered with the reconviction rates in a control sample of Courts where they were not. Such experimental designs are intended to control for bias in subject selection - in this case the possibility that offenders predisposed against reoffending were more likely to be offered, accept and complete a course than offenders predisposed to reoffend. The analysis failed to reveal any significant difference between reconviction rates at the control Courts and the experimental Courts, which cast doubt on the premise of the experimental design. However, the variations

in the proportion of offenders completing a course in different Court areas provided an opportunity to model the effect of subject selection bias. The model indicated that the effectiveness of the courses accounts for most of the difference in the reconviction rates between course and non-course attenders. Overall, taking selection bias into account, the courses appear to have reduced reconviction rates by slightly more than 50 per cent.

The use of the courses will expand in 2000, and DETR have commissioned TRL to carry out a project which will continue to monitor and evaluate their use.

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